

Youth Sexual Exploitation on the Internet: DSM-IV Diagnoses and Gender Differences in Co-occurring Mental Health Issues

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ABSTRACT: This paper explores conventional (non-Internet-related) mental health issues and DSM-IV diagnoses seen among a sample of 512 youth receiving mental health services for an Internet-related problem, with particular attention to victims of online sexual exploitation. Youth victims of online sexual exploitation were more likely to have a post-traumatic stress disorder than youth with other Internet-related problems. Specific attention was given to differences among subgroups of female and male youth victims of online sexual exploitation as compared with same-gender youth with other Internet-related problems. Findings suggest the importance of including Internet use and victimization as part of a standard clinical assessment.

KEY WORDS: Internet; Youth; Sexual Exploitation; Mental Health; Clinical; Victimization.

The Internet has become an integral component in the lives of today's youth. Many youth are using the Internet as a means of communication with friends, meeting new people, and entertainment (Wolak, Mitchell, & Finkelhor, 2006). Yet, a challenge involves weighing these benefits with the reality of the Internet as a tool in the sexual exploitation of children and adolescents. One of the first steps for protecting

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youth on the Internet is to identify the population at greatest risk for this type of victimization, as well as the mental health impact of such experiences. The current article is an effort to identify mental health characteristics of youth victims of Internet sexual exploitation or abuse. Specifically, we will examine the co-occurring clinical diagnoses and conventional (non-Internet-related) mental health issues among a group of youth with Internet-related problems receiving mental health services, with particular attention to gender differences among youth sexual exploitation victims.

Youth Sexual Victimization

The sexual victimization of children and adolescents has been a focus of clinical attention for many decades and a wide range of psychological and interpersonal problems have been linked to sexual victimization. Psychiatric disorders reported among various groups of sexually abused youth include anxiety disorders, including post-traumatic stress disorder; mood disorders; and substance disorders (Avery, Massa, & Lundy, 2000; Molnar, Buka, & Kessler, 2001; Trovelli et al., 1999). Other reported issues include post-traumatic stress, cognitive disorders, emotional pain, avoidance, low self-esteem, guilt, self-blame, delinquency, substance abuse, vulnerability to repeated victimization, and interpersonal difficulties (Briere & Elliott, 1994; Browne & Finkelhor, 1986; Finkelhor, 1990; Finkelhor & Browne, 1988). Research suggests that female victims tend to exhibit more internalizing behaviors, such as depression, anxiety, post-traumatic stress, and suicidal ideation (Feiring, Taska, & Lewis, 1999). Male sexual victims are more likely to have externalizing problems such as oppositional behavior, aggression, substance abuse, and impulsivity (Kendall-Tackett & Williams, 1993; Beitchman, Zucker, Hood, DaCosta, & Akman, 1991).

Internet Sexual Exploitation and Abuse

Several features of the Internet may facilitate its role in sexual abuse and exploitation. These include access to vulnerable populations, with the number of teens (ages 12–17) using the Internet increasing from 56 to 87% between 2000 and 2005 (Lenhart, Madden, & Hitlin, 2005). The Internet is also relatively anonymous which can result in

the possibility for deception (Cooper, 2004). Further, there is a lack of visual cues that may assist potential victims with judgments about suitability, trustworthiness, and sincerity; and the possibility for projection and fantasy in the absence of such specific information.

A national study reports that 13% of youth between the ages of 10 and 17 received an unwanted sexual solicitation or approach over the Internet in the last year (Wolak, Mitchell & Finkelhor, 2006). Four percent of youth received an aggressive sexual solicitation in which a solicitor asked to meet them somewhere, called them on the telephone, sent them regular mail, money or gifts. Thirty-nine percent of these solicitors were said to be age 18 or older, 43% were other youth (under 18 years of age), and for 18% the age was unknown. Many such online solicitations are benign and do not pose any risk for physical harm to the youth but a limited number move to illegal face-to-face meetings that involve sexual contact (Wolak, Mitchell, & Finkelhor, 2003). Based on law enforcement reports, the Wolak et al. (2003) study found that there were an estimated 508 arrests in the year following July 1, 2000 for Internet-related crimes in which an offender originally met a minor online. The same study revealed that the stereotype of the pedophilic predator who uses deception to meet and assault a child is misleading. First, the main targets of Internet solicitations were teenagers, not young children. Second, the offenders used little force or deception about age and sexual motives (Wolak, Finkelhor, & Mitchell, 2004). Third, the teens typically went to meet the offenders after a lengthy Internet correspondence, knowing that the adult was interested in a sexual relationship.

Interestingly, this same law enforcement study revealed an additional estimated 490 arrests for sex crimes against minors involving the Internet where the offender was a family member or a prior acquaintance of the victim (Wolak, Mitchell, & Finkelhor, 2003). These offenders had an existing, offline relationship with the victims, and used the Internet in a number of ways to further the crime. These included using the Internet as a means of communication with the victim, as a tool for deception, to groom or seduce the victim, to sell a victim, and to reward victims (Mitchell, Finkelhor, & Wolak, 2005).

In their clinical practice, social workers and other mental health practitioners may encounter victims who have experienced sexual abuse and exploitation via the Internet. Victim issues in these incidents can be somewhat different from the classic sexual assault trauma paradigm, since many involve teenagers with some allegiance to the perpetrator (Wolak, Finkelhor, & Mitchell, 2004). Some of the

treatment issues can also concern the teen's involvement in or exposure to child pornography and the impact of this on the victim (Wolak, Finkelhor, & Mitchell, 2004). Clinicians have an important and unique view into the lives and experiences of youth victims of sexual exploitation and abuse. Their perspectives and insights regarding the population of individuals receiving mental health services may reveal occurrences and aspects of Internet problems which may not be revealed from a strictly law enforcement or population-based perspective.

Problematic Internet Experiences and Co-occurring Mental Health Issues

Recent research suggests that there is some overlap between Internet-related problems and conventional mental health issues (Mitchell & Wells, in press). It may be that either the Internet problem or the co-morbid conventional mental health issue is pre-existing, or they may both have a common etiology. This is true for a number of other mental health concerns that predate the Internet, such as the complex relationship between substance use and psychiatric disorders, or victimization and depression (O'Malley, 2003; Kilpatrick et al., 2003). Additionally, youth experiencing multiple forms of victimization may have more negative outcomes (Finkelhor, Ormrod, & Turner, 2007; Westenburg & Garnefski, 2003). A national study of children between the ages of 2 and 17 found those who had experienced four or more different kinds of victimization in a single year were more likely to have trauma symptoms, and when taken into account, greatly reduced or eliminated the association between individual victimizations and symptomatology (Finkelhor, Ormrod, & Turner).

The recent national survey of adolescents (Kilpatrick et al., 2003) found support for the relationship between interpersonal violence, including physical assault, sexual assault, and witnessed violence, and risk of post-traumatic stress disorder, major depressive episode and substance abuse/dependence. Three quarters of the adolescents diagnosed with post-traumatic stress disorder had at least one co-occurring mental health diagnosis. Other strong associations with substance use have been found with attention-deficit hyperactivity disorder, depressive disorders (with a co-morbidity of 24–50%) and anxiety disorders (prevalence ranging from 7 to 40% (O'Malley, 2003). Mental health treatment of individuals with co-morbid disorders generally requires more intensive clinical intervention and

prolongs the course of the illnesses (U.S. Department of Health and Human Services, 1999).

In the current paper, we examine the characteristics of a sample of youth victims of online sexual exploitation and abuse. First, we will examine and compare the demographic characteristics of youth who experienced online sexual exploitation and abuse with those youth experiencing other Internet-related problems (such as Internet over-use). Second, we compare co-occurring DSM-IV diagnoses among youth online sexual exploitation victims and other youth clients. Third, we examine gender differences in the types of co-occurring mental health issues among male and female online sexual victimization victims.

Methods

Preliminary Postcard Survey

A random sample of names and addresses were gathered from professional organization memberships lists predominantly in the areas of social work, psychology, and psychiatry. The final sample consisted of 31,382 professionals. Each professional received a cover letter in 2003 and a one-page postage-paid survey on which respondents could indicate whether they had worked with any clients (child and/or adult) in the past 5 years who had various problematic Internet experiences including those involving adult pornography; child pornography; sexual approaches, solicitations or behavior; a romantic or sexual relationship; a close relationship or friendship; fraud or other scams; gaming or role-playing; racist or hate material; violent material; and aggressive behavior (e.g., harassment, stalking).

The process of completing and returning the mail survey was taken as assent to participate in this study. At the end of the postcard survey, respondents were asked whether they would like to participate in a more detailed follow-up survey about professional needs in this area and some anonymous information about one of their clients (if applicable). There were 7,841 valid respondents to the postcard survey (a 25% response rate at the minimum given that our bulk-mailing procedures likely resulted in some respondents never receiving the mailing), of which 92% ($n = 7,232$) had provided direct services to clients within the past 5 years. This study, and all its methodology were conducted in compliance with the University of New Hampshire's Institutional Review Board.

Detailed Survey

Instrument. The follow-up instrument was designed through semi-structured interviews with a variety of mental health professionals. The survey covered several sections aimed at understanding the client's problematic Internet experience including client demographics and background, mental health service referral, primary and secondary problems the client was in treatment for (e.g., various issues surrounding mental and physical health, family and/or relationships, school and/or work, victimization, aggression, computer/Internet), characteristics of the Internet problem, and diagnosis and treatment. Professionals were asked to respond to this survey about one client only and the following three rules applied for choosing one: (1) if you have encountered only one client with a problematic Internet experience, please complete this survey about that client, (2) if you have encountered more than one, please give us information about the most recent youth client (under 18), if you have youth clients, and (3) otherwise, please give us information about the adult client you have seen most recently. The survey was pre-tested on 100 professionals across all disciplines in the study.

Returns. A total of 3,398 respondents consented to participate in the Phase 2 follow-up survey (based on Phase 1 feedback). Of these, 2,170 returned a completed survey, resulting in a 64% response rate. Of these, 71% ($n = 1,534$) encountered at least one client with a problematic Internet experience in the target time frame. A sum of 93 responses was dropped from the current analysis because of duplication, difficulty in coding, or because the client was not the individual who had the problematic Internet experience, resulting in 1,441 cases. Of these, 35% ($n = 512$) of respondents reported cases involving youth (under 18 years of age), which is the focus of the current paper.

Respondent Characteristics

Of the 512 respondents (mental health professionals) who had worked with at least one youth client (17 years old or younger) with a problematic Internet experience within the past 5 years, slightly over half were female (58%), the majority was over 40 years old (79%), and most were of European-American descent (95%). The highest earned degree was either a Master's degree (45%) or a Ph.D. (37%) and most respondents were psychologists (38%) or social

workers (20%). The majority of the respondents had been providing direct services to clients for more than 15 years (63%) and they worked in a variety of professional settings including independent practice (52%), school or other educational setting (22%), mental health clinics (11%), and psychiatric hospitals (3%). Over half (54%) served a suburban area, 29% an urban area, and 22% a rural area.

Measures

The Survey of Internet Mental Health Issues. The Survey of Internet Mental Health Issues (SIMHI) was an exploratory study of the variety of problematic Internet experiences being seen by mental health professionals. Because the Internet is playing an increasingly central role in the lives of children and adults alike, it is important to understand how problems online manifest themselves, how they interrelate with pre-existing mental health and relationship problems; who is affected; and what the outcomes are, so that professionals can effectively treat these individuals. As part of the SIMHI study, researchers and clinicians identified a wide variety of problematic Internet behaviors and experiences among youth and adult clients receiving mental health treatment. From this, we developed an 11-category inventory of problematic Internet experiences (Mitchell, Becker-Blease, & Finkelhor, 2005).

One category, sexual exploitation and abuse, includes experiences of victimization that is the main focus of the current paper. Other problematic Internet experiences experienced by youth in the sample, and used for comparison purposes include overuse; pornography use; gaming, gambling or fantasy role-play; harassment; isolative-avoidant behavior; fraud, stealing or deception; exposure to harmful material that is nonsexual in nature; and risky or inappropriate use, not otherwise specified (a residual category involving activities that were not exploitative or otherwise criminal, and were not inherently problematic, but raised concerns due to their risky or inappropriate nature such as sexual behavior and interaction with other individuals that began online and sometimes progressed into the real world). For more details about this inventory see Mitchell, Becker-Blease and Finkelhor (2005).

DSM-IV diagnoses and co-occurring mental health issues. Other variables measured in this study explored clients' DSM-IV diagnoses as well as the presence of a variety of more general, co-occurring

mental health issues presented in treatment. Respondents were asked to report whether their clients had been diagnosed with specific DSM-IV diagnoses (American Psychiatric Association, 1994). The survey instrument collected information on both current and lifetime diagnoses. In addition, mental health professionals reported whether or not their clients had experienced other types of co-occurring issues related to mental health. These were captured using dichotomous variables (yes/no for each) and included: (1) *Mental and Physical Health Problems* (i.e., somatic complaints/insomnia, anxiety and/or phobias, diagnosed mental illness, suicidal ideation or suicide attempt, grief, physical disability or chronic health problem, drug or alcohol problems, and a specific life stressor), (2) *Family and/or Other Relationship Problems* (i.e., social withdrawal, parent-child conflict, marital conflict or divorce, some other relationship problem, substance abuse problems within family, disciplinary problems at home, running away from home, and trouble making friends), (3) *School Problems* (i.e., school failure or drop-out, disciplinary problems at school, and failing grades at school), (4) *Victimization* (i.e., physical, sexual, bullying, emotional), and (5) *Aggressive Behavior* (i.e., aggressive acting out or conduct problems, bullying behavior, sexual acting out, sexual abuse to others, criminal history).

Analyses

Bivariate. First, all youth sexual exploitation victims were compared with youth having other Internet-related problems on demographic characteristics using Pearson Chi-square tests. Second, a series of Pearson Chi-square tests were used to compare co-occurring DSM-IV diagnoses for all youth victims of online sexual exploitation as compared to youth experiencing other Internet-related problems. Third, these analyses were conducted for female and male clients, to assess whether there were gender differences in co-occurring mental health issues.

Results

Descriptive Characteristics

Each case ($n = 512$) that social workers and other mental health professionals reported represents one youth client who experienced some

type of problematic Internet experience. This entire group of youth clients with some type of problematic Internet experience was fifty-seven percent male (57%) and forty-three percent female (Table 1). Youth ranged in age from under 13 years old (18%) to 15 to 17 years old (50%). Mean age was 14.28 years (standard deviation = 1.945). The majority of clients were European-American (91%), in school at the time of treatment (92%), and living with a parent(s) (92%). Most youth were referred by another mental health professional (27%) or a family member (31%). Other authorities were involved in over half (53%) of cases including schools (30%); local, state or county law enforcement (25%); and child protective services (14%).

A set of 26% of youth clients had experienced a problem stemming from an online sexual exploitation. This subsample of youth who were victims of online sexual exploitation or abuse ($n = 132$) had similar demographic characteristics as those youth clients with other Internet-related problems ($n = 380$) with the exception of gender and involvement with other authorities. Youth online sexual exploitation victims were more likely to be female (77%) as compared to other clients (32%) experiencing other problematic Internet experiences ($X^2 = 80.64, p < .001$). Other authorities were more likely to be involved with cases with youth online sexual exploitation victims (63% vs. 49%, $X^2 = 7.67, p = .006$). These authorities were more commonly local, state or county law enforcement (42% vs. 19%, $X^2 = 27.13, p < .001$); federal law enforcement (10% vs. 3%, $X^2 = 9.62, p = .002$); and child protective services (26% vs. 9%, $X^2 = 21.06, p < .001$).

DSM-IV Diagnoses of Youth Clients by Type of Internet-related Problem

Slightly more than half of all youth with Internet-related problems (58%) had a current DSM-IV diagnosis while 66% had a DSM-IV diagnosis at some point in their lifetime (Table 2). Similarly, 61% of youth online sexual exploitation victims had a current and 68% had a lifetime DSM-IV diagnosis. The most common diagnoses for the entire group were mood disorders (44% current and 52% lifetime); these were typically depressive disorders but some were bipolar disorders. Twenty-seven percent of all youth had a current and 33% a lifetime disorder first diagnosed in childhood. These were most commonly conduct or disruptive disorders (10% current, 14% lifetime) and attention-deficit disorders (5% current, 17% lifetime). Twenty-one percent of all youth had a current and 24% had a lifetime

TABLE 1
Demographic Characteristics of Youth With Internet-related Problems

Characteristics	All Youth Clients (<i>N</i> = 512) %	Youth Sexual Exploitation Victims (<i>n</i> = 132) %	Youth with Other Internet-Related Problems (<i>n</i> = 380) %
Gender***			
Male	57	23	68
Female	43	77	32
Age			
6–9 years old	1	1	2
10–12 years old	17	12	19
13–14 years old	32	34	31
15–17 years old	50	53	49
Living with parents	92	92	92
Race/ethnicity			
European-American	91	90	91
African-American	3	5	3
Hispanic or Latino	3	4	3
Asian or Pacific Islander	3	2	4
Native American or Alaska Native	1	1	1

In school at time of Internet problem	92	96	90
Referral			
Family member	31	33	29
Mental health professional	27	27	27
Self-referred	11	10	12
Legal professional	11	14	9
Friend, neighbor, or acquaintance	5	4	5
Someone else (school personnel, insurance company, clergy, employer)	16	11	17
Authorities Involved			
Some other authority involved**	53	63	49
School	30	24	33
Local, state, or county law enforcement***	25	42	19
Child protective services***	14	26	9
Federal law enforcement**	5	10	3
Internet service provider	5	8	4

*** $p < .01$, ** $p < .001$.

Note. Differences are based on chi-square tests between youth sexual exploitation victims and youth with other Internet-related problems.

TABLE 2
DSM-IV Diagnoses of Youth Clients by Type of Experience

DSM-IV Disorder	All Youth Clients (<i>N</i> = 512)		Youth Sexual Exploitation Victims (<i>N</i> = 132)		Youth with Other Internet-related problems (<i>N</i> = 380)	
	Current diagnosis (58%) (<i>n</i> = 297) %	Lifetime diagnosis (66%) (<i>n</i> = 338) %	Current diagnosis (61%) (<i>n</i> = 81) %	Lifetime diagnosis (68%) (<i>n</i> = 90) %	Current diagnosis (57%) (<i>n</i> = 216) %	Lifetime diagnosis (65%) (<i>n</i> = 248) %
Mood disorders	44	52	41	49	45	54
Depressive disorders	25	45	22	45	27	45
Bipolar disorders	3	8	2	5	3	9
Disorders first diagnosed in childhood	27	33	23	28	28	35
Conduct and disruptive disorders	10	14	9	13	10	15
Attention-deficit disorders	5	17	5	11	5	19
Pervasive developmental disorders	2	5	1	1	2	6
Learning disorders	1	3	1	3	1	3
Mental retardation	0	1	0	2	0	1

Anxiety disorders	21	24	30	31	19	22
<i>Post-traumatic stress disorder</i>	6	8	16***	19***	3	4
Obsessive-compulsive disorder	3	6	1	3	4	7
Other anxiety disorders	7	12	5	11	8	13
Adjustment disorders	12	12	16	17	10	10
Personality disorders	6	6	9	9	5	4
Substance-related disorders	5	5	9	9	4	4
Other conditions that may be focus of clinical attention	7	6	5	4	7	7
Sexual and gender identity disorders	3	3	5	4	2	2
Impulse-control disorders	3	3	2	2	4	4
Schizophrenia and other psychotic disorders	2	2	1	1	2	2
Not ascertainable	11	10	11	9	11	10

Note. Missing data for whether there was a *current diagnosis* is 8% of all youth; 6% of youth with sexual exploitation victimization; and 9% of youth with other Internet-related problems. Missing data for whether there was a *lifetime diagnosis* is 8% of all youth and 6% of youth with sexual exploitation victimization, and 8% of youth with other Internet-related problems.

Note. Eating disorders; dissociate disorders; delirium, dementia, and other amnesic and cognitive disorders, factitious disorders, and sleep disorders were experienced by 1% of the sample or less for current and lifetime diagnosis.
 *** $p < .001$.

anxiety disorder. Adjustment disorders were seen in 12% of all youth (both current and lifetime); and 6% had a personality disorder (both current and lifetime). Youth online sexual exploitation victims were significantly more likely to have both a current (16% vs. 3%, $X^2 = 17.48$, $p < .001$) and lifetime (19% vs. 4%, $X^2 = 18.45$, $p < .001$) diagnosis of post-traumatic stress disorder.

Co-occurring Conventional Mental Health Issues Among Youth Clients

Female Youth Clients. Mental health professionals reported that their female youth clients had a variety of co-occurring mental health issues that were addressed in treatment (Table 3). For all female youth clients experiencing Internet-related problems, the mean number of conventional mental health issues presented during treatment was 6.87. Mental health practitioners reported that at least one-quarter of these female clients' issues included depression (72%), anxiety or phobias (46%), a specific life stressor (33%), suicidal ideation or attempt (27%), parent-child conflict (76%), disciplinary problems at home (40%), social withdrawal (33%), trouble making friends (33%), failing grades at school (43%), disciplinary problems at school (30%), sexual victimization (35%), and sexual acting out (25%).

Female victims of online sexual exploitation had significantly more co-occurring mental health issues than female youth with other Internet-related problems (7.47% vs. 6.37, $t = -2.25$, $p = .03$). These youth who had experienced online sexual exploitation were more likely to have co-occurring issues stemming from somatic complaints or insomnia (21% vs. 11%, $X^2 = 4.18$, $p = .04$), parent-child conflict (83% vs. 70%, $X^2 = 5.22$, $p = .02$), running away from home (22% vs. 7%, $X^2 = 9.28$, $p = .002$), sexual victimization (56% vs. 17%, $X^2 = 36.41$, $p < .001$), and sexual acting out (35% vs. 17%, $X^2 = 9.49$, $p = .002$).

Male Youth Clients. Mental health professionals reported that male youth clients experiencing an Internet-related problem also had a variety of co-occurring issues that were addressed in treatment (Table 4). The mean number of conventional mental health issues presented during treatment was 7.05. Mental health practitioners reported that at least a quarter of these male youth clients experienced depression (64%), anxiety or phobias (41%), a specific life

TABLE 3
Co-occurring Conventional Mental Health Issues among Female Youth by Type of Experience

Co-occurring Mental Health Issue	All Female Youth Clients (N = 221) %	Female Youth Online Sexual Exploitation Victims (N = 101) %	Female Youth with Other Internet-Related Problems (N = 120) %	Risk Estimate
Mean no. conventional mental health issues*	6.87	7.47	6.37	—
<i>Mental and Physical Health Problems</i>				
Depression	72	71	73	.94
Anxiety or other phobias	46	45	47	.89
Specific life stressor	33	34	32	1.1
Suicidal ideation or suicide attempt	27	27	27	.96
Somatic complaints or insomnia	15	21	11	2.2*
Diagnosed mental illness	9	8	9	.85
Drug or alcohol use	11	14	8	1.8
Grief	9	10	9	1.1
Physical disability or chronic health problem	5	3	6	.49

Table 3
Continued

Co-occurring Mental Health Issue	All Female Youth Clients (N = 221) %	Female Youth Sexual Exploitation Victims (N = 101) %	Female Youth with Other Internet-Related Problems (N = 120) %	Risk Estimate
<i>Family and/or Relationship Problems</i>				
Parent-child conflict	76	83	70	2.1*
Disciplinary problems at home	40	47	35	1.6
Social withdrawal	33	35	32	1.1
Trouble making friends	33	31	36	.79
Running away from home	14	22	7	3.4**
Substance abuse problems within family	9	10	8	1.2
Marital conflict or divorce	10	8	13	.60
<i>School Problems</i>				
Failing grades at school	43	47	39	1.3

Disciplinary problems at school	30	30	30	30	.99
School failure or drop-out	18	19	17	17	1.1
<i>Victimization</i>					
Sexual victimization	35	56	17	17	6.1***
Bully victimization	13	11	14	14	.74
Physical victimization	8	10	6	6	1.8
Emotional victimization	7	6	7	7	.78
<i>Aggression</i>					
Aggressive acting out or conduct problems	22	23	21	21	1.1
Sexual acting out	25	35	17	17	2.7***
Bullying others	7	6	7	7	.78
Sexual abuse to others	1	2	0	0	-
Criminal history	4	5	3	3	2.0

* $p < .05$; ** $p < .01$; *** $p < .001$.

Note. Differences are based on chi-square tests between female youth sexual exploitation victims and female youth with other Internet-related problems.

TABLE 4
Co-occurring Conventional Mental Health Issues among Male Youth by Type of Experience

Co-occurring Problems	All Male Youth Clients (N = 291) %	Male Youth Online Sexual Exploitation Victims (N = 31) %	Male Youth with Other Internet-Related Problems (N = 260) %	Risk Estimate
Mean no. conventional mental health issues***	7.05	9.58	6.75	—
<i>Mental and Physical Health Problems</i>				
Depression	64	68	64	1.2
Anxiety or other phobias	41	55	39	1.9
Specific life stressor	33	45	32	1.7
Suicidal ideation or suicide attempt	12	10	13	.74
Somatic complaints or insomnia	10	19	9	2.4
Diagnosed mental illness	17	32	15	2.6*
Drug or alcohol use	10	26	9	3.8**
Grief	6	16	5	4.0**
Physical disability or chronic health problem	5	7	4	1.6

<i>Family and/or Relationship Problems</i>						
Parent-child conflict	72	81	71	1.7		
Disciplinary problems at home	42	58	40	2.0		
Social withdrawal	41	39	41	.89		
Trouble making friends	38	29	39	.63		
Running away from home	7	35	4	13.7***		
Substance abuse problems within family	9	19	8	2.7*		
Marital conflict or divorce	12	23	11	2.3		
<i>School Problems</i>						
Failing grades at school	45	35	46	.64		
Disciplinary problems at school	39	45	38	1.3		
School failure or drop-out	20	26	19	1.5		
<i>Victimization</i>						
Sexual victimization	17	55	12	8.7***		
Bully victimization	12	19	11	1.8		
Physical victimization	10	16	9	2.0		
Emotional victimization	6	10	6	1.7		

Table 4
continued

Co-occurring Problems	All Male Youth Clients (N = 291) %	Male Youth Online Sexual Exploitation Victims (N = 31) %	Male Youth with Other Internet-Related Problems (N = 260) %	Risk Estimate
<i>Aggression</i>				
Aggressive acting out or conduct problems	33	32	33	.95
Sexual acting out	25	48	22	3.3**
Bullying others	13	19	12	1.8
Sexual abuse to others	14	16	13	1.2
Criminal history	10	10	10	.93

* $p < .05$; ** $p < .01$; *** $p < .001$.

Note. Differences are based on chi-square tests between male youth sexual exploitation victims and male youth with other Internet-related problems.

stressor (33%), parent-child conflict (72%), disciplinary problems at home (42%), social withdrawal (41%), trouble making friends (38%), failing grades at school (45%), disciplinary problems at school (39%), aggressive acting out or conduct problems (33%), and sexual acting out (25%).

Male victims of online sexual exploitation had more co-occurring conventional mental health issues than male youth with other Internet-related problems (9.58% vs. 6.75, $t = -4.03$, $p < .001$). Victims were more likely to have co-occurring issues stemming from a diagnosed mental illness (32% vs. 15%, $X^2 = 5.54$, $p = .02$), drug or alcohol use (26% vs. 9%, $X^2 = 9.01$, $p = .003$), grief (16% vs. 5%, $X^2 = 6.67$, $p = .01$), running away from home (35% vs. 4%, $X^2 = 41.41$, $p < .001$), substance abuse problems within the family (19% vs. 8%, $X^2 = 4.19$, $p = .04$), sexual victimization (55% vs. 12%, $X^2 = 35.78$, $p < .001$), and sexual acting out (48% vs. 22%, $X^2 = 10.02$, $p = .002$).

Discussion

Mental health practitioners reported that one in four of their youth clients in treatment with an Internet-related problem had experienced an online sexual exploitation. Online sexual exploitation victims were more likely than youth with other Internet-related problems to be female, but a notable minority were male (one-quarter of victims). These findings support other research reporting that males may comprise a larger proportion of victims in sex-related crimes on the Internet than traditional sex crimes (Mitchell, Finkelhor, & Wolak, 2005). Not surprisingly, cases with youth online sexual exploitation victims were more likely to involve some other authority besides the clinician, typically a local, state, county, or federal law enforcement official, or child protective services. These findings likely reflect collaborative efforts and mandated reporting obligations and suggest the necessity of mental health providers to be in touch and work closely with law enforcement and other authorities in these circumstances.

DSM-IV Diagnoses

This study finds that youth experiencing Internet-related problems have been diagnosed with a variety of DSM-IV diagnoses. Based on

mental health practitioners' reports, a greater percentage of youth victims of online sexual exploitation had current and lifetime post-traumatic stress disorders. This is not surprising, given past research in the field of sexual abuse that emphasizes post-traumatic stress as an outcome (Avery, Massat & Lundy, 2000). This finding suggests that youth victims of Internet-related sexual exploitation have some of the same mental health characteristics as traditional sexual abuse victims. However, only a minority of youth victims had a current or lifetime diagnosis of post-traumatic stress. Further, these victims had a diversity of other types of diagnoses, speaking to the diverse nature of online sexual exploitation victims.

Co-occurring Mental Health Issues

Mental health professionals reported that female and male youth clients experience some, but not all of the same mental health issues. Both male and female victims of online sexual exploitation were more likely to experience running away from home, acting out sexually, and sexual victimization. Clearly, this victimization may be the identified online sexual exploitation, although this may also represent other conventional sex crimes. Similarly, these victims may have run away in order to connect with offenders met online, or may have run away for other reasons. Both male and female youth clients appear to exhibit both internalizing and externalizing problems. This is true for online sexual exploitation victims as well as youth experiencing other types of Internet-related problems. While these cases represent a diverse array of Internet-related problems, there were general similarities in the conventional mental health issues both groups experienced. The general overlap between problematic Internet experiences and co-occurring mental health issues suggest that youth who are facing challenges in their daily lives may also be encountering problems online. It is plausible that these problems are, in fact, related. For instance, a youth who generally exhibits risky behavior may be vulnerable to increased exposure to threatening situations on and offline. Similarly, socially withdrawn youth may turn to Internet overuse and also avoid social interactions offline.

Clinical Implications

First, these findings suggest that social workers and other mental health professionals should consider the unique characteristics of

online sexual exploitation victims. While these victims share some characteristics of traditional sexual abuse victims, such as post-traumatic stress disorders, they also experience other types of mental health diagnoses. Professionals should assess the role that the Internet plays in youth clients' problematic Internet experiences and consider treatment interventions which address online sexual victimization and other Internet-related problems. Second, these victims are likely to have law enforcement, child protective services, or other agencies involved in their lives. Therefore, clinicians should work closely with these authorities to provide comprehensive treatment. Third, victims of online sexual exploitation may present with specific DSM-IV diagnoses and related mental health issues. These issues may be related to the Internet-nexus of their victimization or may reflect sexual exploitation more generally.

Finally, social workers and other professionals concerned about the well-being of this population should be knowledgeable about the Internet and how youth are behaving and what they experience online. It is currently unclear whether youth with certain DSM-IV diagnoses or co-occurring mental health issues are more prone to online victimization or experience more negative symptomatology than other youth. However, these exploratory findings suggest that a more comprehensive analysis of the potential overlap between these experiences and behaviors may result in more effective prevention and intervention strategies for this population.

Limitations

Although this study is a unique exploration into a new domain, a few limitations must be noted. First, the methodology was not designed to capture a representative sample of all mental health professionals, so the frequency with which problematic Internet experiences come to the attention of mental health professionals cannot be established from this study.

Second, the problematic Internet experiences in this study are not necessarily representative of all problematic experiences online (in terms of severity and characteristics of clients and cases) because many people with problems do not receive mental health services. It could be that some of the people most in need of mental health services due to problematic Internet experiences do not have access to them. Alternatively, there are likely individuals who experience problematic Internet experiences, but are able to cope with them

well without professional help (Finkelhor, Mitchell, & Wolak, 2000). The long-term effects of these experiences are currently unknown but important to address in future research.

Third, there may be limitations to the sample of mental health professionals and cases reported here. This study had a low response rate. Additionally, these professionals were only asked to respond about a single client, and although respondents were instructed on how to systematically choose a client, it is conceivable that professionals decided to choose the more memorable, interesting or otherwise salient cases, possibly skewing the sample in this way.

Fourth, since little research existed on different problematic Internet experiences in mental health settings, we purposely kept definitions of these experiences vague to explore and capture the variety of problematic Internet experiences coming to the attention of mental health professionals. It was expected that providing specific definitions for main categories of Internet experiences (e.g., problems related to adult pornography, sexual solicitations, and aggressive behavior) would leave out some of the less common and heard about experiences. As a result, some professionals may have had a hard time interpreting whether they had clients that would meet the criteria for our study. Yet, since this study is exploratory and designed to capture a range of problematic Internet experiences (rather than establishing incidence rates), it is unlikely that this had a large impact on the results.

Conclusion

Findings from this article reveal that youth experiencing online sexual victimization and other types of Internet-related problems also present with a variety of DSM-IV diagnoses and conventional mental health issues. These youth also present with clinical diagnoses, parent-child conflicts, and academic challenges. Social workers and other clinicians may benefit from assessing youth clients' Internet use, experiences, and behavior as such factors may provide an avenue for more effective and comprehensive treatment strategies.

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